

In the Claims:

1. (Currently Amended) A method in a computer system for efficiently comparing two ~~trinary logic representations~~, comprising:
 - creating a first data structure (referred herein as a VALUE data structure) representative of a first set of properties related to a user;
 - creating a second data structure (referred herein as a KNOWN data structure) representative of whether said first set of properties is known;
 - creating a third data structure (referred herein as a TARGET data structure) representative of a target set of properties related to an audio element;
 - creating a fourth data structure (referred herein as a WANT data structure) representative of whether said target set of properties is wanted; and
 - comparing said first, second, third, and fourth data structures using bit-wise binary operations to determine whether said first set of known properties are wanted as a target set of properties; [[and]]
 - storing the audio element into a cache memory upon determining that the first set of known properties are wanted as the target set of properties[[.]];
 - selecting an audio element from the cache memory;
 - comparing an identifier of the selected audio element to an identifier of a most recently played audio element; and
 - rejecting the selected audio element if it is substantially similar to the most recently played audio element.
2. (Original) The method of claim 1 wherein said bit-wise binary operation are performed according to the Boolean equation: (not WANT) or (KNOWN and ((TARGET xor VALUE))).
3. (Original) The method of claim 1 wherein said bit-wise binary operation are performed according to the Boolean equation: (not WANT) or (KNOWN and ((TARGET and

VALUE) or ((not TARGET) and (not (VALUE))).

4. (Original) The method of claim 1 wherein said first, second, third, and fourth data structures are 16-bit computer words.
5. (Original) The method of claim 1 wherein said first, second, third, and fourth data structures are 32-bit computer words.
6. (Original) The method of claim 1 wherein said first, second, third, and fourth data structures comprise multiple computer words.
7. (Original) The method of claim 1 wherein at least one of said first set of properties and at least one of said target set of properties are represented as a single bit.
8. (Original) The method of claim 1 wherein at least one of said first set of properties and at least one of said target set of properties are represented as multiple bits.
9. (Currently amended) A method in a computer system for selecting an audio element to transmit to a remote listener, comprising:
 - creating a first data structure (referred herein as a VALUE data structure) representative of a first set of demographic properties related to a remote listener;
 - creating a second data structure (referred herein as a KNOWN data structure) representative of whether said first set of demographic properties related to the remote listener is known;
 - creating a third data structure (referred herein as a TARGET data structure) representative of a target set of demographic properties relating to an audio element;
 - creating a fourth data structure (referred herein as a WANT data structure) representative of whether said target set of demographic properties is wanted to be targeted; and

comparing said first, second, third, and fourth data structures using bit-wise binary operations to determine whether the audio element should be transmitted to the remote listener [..];

storing the audio element into a cache memory upon determining that the first set of known properties are wanted as the target set of properties;

selecting an audio element from the cache memory;

comparing an identifier of the selected audio element to an identifier of a most recently played audio element; and

rejecting the selected audio element if it is substantially similar to the most recently played audio element.

10. (Original) The method of claim 9 wherein said bit-wise binary operation are performed according to the Boolean equation: (not WANT) or (KNOWN and ((TARGET xor VALUE))).
11. (Original) The method of claim 9 wherein said bit-wise binary operation are performed according to the Boolean equation: (not WANT) or (KNOWN and ((TARGET and VALUE) or ((not TARGET) and (not (VALUE))))).
12. (Original) The method of claim 9 wherein said first, second, third, and fourth data structures are computer words.
13. (Original) The method of claim 9 wherein said first, second, third, and fourth data structures are 32-bit computer words.
14. (Original) The method of claim 9 wherein said first, second, third, and fourth data structures comprise multiple computer words.

15. (Original) The method of claim 9 wherein at least one of said first set of properties and at least one of said target set of properties are represented as a single bit.
16. (Original) The method of claim 9 wherein at least one of said first set of properties and at least one of said target set of properties are represented as multiple bits.
17. (Original) The method of claim 9 wherein said first set of demographic properties includes the age of the remote listener.
18. (Original) The method of claim 9 wherein said first set of demographic properties includes the gender of the remote listener.
19. (Original) The method of claim 9 wherein said first set of demographic properties includes the marital status of the remote listener.
20. (Original) The method of claim 9 wherein said first set of demographic properties includes the city where the remote listener lives.
21. (Original) The method of claim 9 wherein said audio element is an advertisement.
22. (Currently Amended) A customized personal radio broadcast system operable to select an audio element to transmit to a remote listener, comprising:
 - means for creating a first data structure (referred herein as a VALUE data structure) representative of a first set of demographic properties related to a remote listener;
 - means for creating a second data structure (referred herein as a KNOWN data structure) representative of whether said first set of demographic properties related to the remote listener is known;
 - means for creating a third data structure (referred herein as a TARGET data structure) representative of a target set of demographic properties relating to an audio element;

means for creating a fourth data structure (referred herein as a WANT data structure) representative of whether said target set of demographic properties is wanted to be targeted; and

means for comparing said first, second, third, and fourth data structures using bit-wise binary operations to determine whether the audio element should be transmitted to the remote listener [[.]]

means for storing the audio element upon determining that the first set of known properties are wanted as the target set of properties;

means from selecting at least one stored audio element;

means for comparing an identifier of the selected audio element to an identifier of a most recently played audio element; and

means for rejecting the selected audio element if it is substantially similar to the most recently played audio element.